to convey more adhesive or they are adjusted in a way that all of them convey less adhesive.

[0127] If said monitoring process provides results that indicate that the central application valve **25***b* works correctly, but that the outer (and more important) application valves **25***a* and **25***b* convey too much medium, the control (or alternatively a user) may instruct the motor to provide less output such that the outer application valves **25***a* and **25***c* convey the correct amount of medium (while on the other hand it is accepted that the central application valve **25***b* has a lesser output than desired, knowing that the output of the application valves **25***a* and **25***c* is more important to be precise).

[0128] In this way a simple and even automated method of performing a calibration of the apparatus **10** is provided.

[0129] Finally it should be noted that in the description of the figures the term "adhesive" or "hot melt adhesive" is only used exemplary and could at all instances be substituted by the term "medium" and visa versa.

1-15. (canceled)

16. An apparatus for the application of a liquid to viscous medium onto an application surface, comprising:

a port for providing a connection between the apparatus and a supply of said liquid to pasty medium upstream of the apparatus;

at least two volumetric delivery pumps for metering volumes of said medium, said volumetric delivery pumps being located downstream of said port,

each volumetric delivery pump being in fluid connection with an application valve of the apparatus, located downstream of the volumetric delivery pump for passing a metered volume of the medium from the delivery pump to said application valve,

wherein the apparatus comprises a flow meter in fluid connection with said volumetric delivery pumps, which flow meter is located upstream of said volumetric delivery pumps.

17. The apparatus of claim **16**, further comprising a detection system coupled to the flow meter for detecting a malfunction of the delivery pumps by monitoring the measurements of the flow meter.

18. The apparatus of claim **17**, wherein the detection system initiates a warning signal in case the measurements of the flow meter fall below a predetermined threshold value.

19. The apparatus of claim **16**, wherein each volumetric delivery pump is connected to a closable recirculation channel with the inlet of the recirculation channel being located downstream of the according volumetric delivery pump but upstream of the application valve.

20. The apparatus of claim **19**, wherein the recirculation channel is closable by a pneumatic valve.

21. The apparatus of claim **16**, wherein the fluid connection between the flow meter and said volumetric delivery pumps is provided by a rigid channel.

22. The apparatus of claim **16**, wherein the flow meter is rigidly mounted to a filter block of the apparatus.

23. The apparatus of claim **16**, wherein the apparatus includes mounting means for the flow meter which are mountable in different directions with respect to a manifold of the apparatus.

24. The apparatus of claim **16**, wherein said apparatus is a hot melt adhesive application apparatus and the liquid to viscous medium is a hot melt adhesive.

25. A method of calibrating and/or monitoring at least two volumetric delivery pumps of an apparatus for the application of a liquid to viscous medium onto an application surface, each volumetric delivery pump being in fluid connection with a separate application valve of the apparatus, located downstream of the delivery pump for passing a metered volume of the medium from the delivery pump to said application valve, the method comprising:

a) providing a flow meter in fluid connection with said volumetric delivery pumps upstream of said volumetric delivery pumps;

b) closing all but a single application valve;

c) actuating the volumetric delivery pump connected to said single application valve;

d) measuring the amount of medium passing through the flow meter for a predetermined period of time; and

e) comparing the measured amount to a reference amount said delivery pump connected to said single application valve should theoretically convey during said period of time.

26. The method of claim **25**, further comprising the step of performing steps b) to e) for each further valve.

27. The method of claim **26**, further comprising the step of calibrating the volumetric delivery pumps by regulating a common motor driving all the pumps under consideration of the importance of the different volumetric delivery pumps for the application process.

28. The method of claim **25**, further comprising the step of generating a signal in case the comparison under step e) results in a difference in an amount that exceeds a predetermined threshold value.

29. The method of claim **25**, wherein each pair of volumetric delivery pump and according application valve is connected to a closable recirculation channel, with an inlet of the recirculation channel being located downstream of a respective volumetric delivery pump but upstream of the respective application valve, and wherein during step b) the recirculation channels connected to the closed application valves are opened, by turning off pneumatic recirculation valves assigned to each recirculation channel.

30. The method of claim **25**, wherein said apparatus is a hot melt adhesive application apparatus and the liquid to viscous medium is a hot melt adhesive.

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